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(54) WRITING INSTRUMENT AND ACCESSORY DEVICE

(71) I, ROBERT WARD DARLINGTON, a British Subject of 14 Manor Road, Garstang, Nr. Preston, Lancashire, PR3 1JR do hereby declare the invention, for which I pray that a patent may be granted to me, and the method by which it is to be performed, to be particularly described in and by the following statement:—

This invention is concerned with a writing instrument and an accessory device for a writing instrument and is an improvement in or modification of the invention described and claimed in my Specification No. 1,332,174 (application no. 35332/70).

According to one aspect of the present invention there is provided an accessory device for a writing instrument comprising a substantially tubular housing having at one end means for engagement with a writing instrument, a rolled paper strip which is free to rotate within the housing, an exit slot in the housing for the paper strip, and means on the housing movable from a first position covering the slot to a second position exposing the slot, the movable means and the housing being provided with at least one cooperating depression and protrusion acting as a detent means in at least one of the said positions.

According to another aspect of the invention there is provided a writing instrument comprising a substantially tubular housing having at one end marking means, adjacent the other end an exit slot for one end of a roll of paper strip which is free to rotate within the housing, and means on the housing movable from a first position covering the slot to a second position exposing the slot, the movable means and the housing being provided with at least one cooperating depression and protrusion acting as detent means in at least one of the said positions.

The roll of paper strip may be mounted on a shaft which is rotatable by handle means. Preferably the shaft is mounted in a friction bearing to ensure that the supply of paper is readily controllable.

The exit slot for the paper strip may have a cutting edge for the easy removal of a portion of the strip.

The means on the housing is movable to cover the exit slot to protect a protruding edge of the paper strip. The movable means may be in the form of a tubular member rotatable on the housing and itself having an exit slot. In this instance the slot on the tubular member is preferably provided with the cutting edge rather than the slot in the housing.

The invention will now be described, by way of example only, with reference to the accompanying drawings, in which:

FIGURE 1 is an exploded partially sectional view of a writing instrument, and

FIGURE 2 is a perspective view of the writing instrument as shown in Figure 1, and

FIGURE 3 is a perspective view of a tubular member for mounting on the instrument.

Referring to the drawings, a writing instrument comprises a first substantially tubular housing portion 1, which has at one end a ball tip nib 2 and contains ink reservoir therefor (not shown) and a second substantially tubular housing portion 3, which contains a roll of paper strip 4. The second housing portion 3 is engageable with the first portion 1 by co-operating screw threads 5. It will be appreciated that the second housing portion 3 may be in the form of an accessory for attachment to a writing instrument or, as shown here, part of a complete writing instrument.

The roll of paper strip 4 is wound on a hollow tube 6 in which the hollow portion is of square cross section and which is mounted on a corresponding square section portion of a shaft 7 rotatably mounted in the

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second housing portion 3. The end of the shaft 7 adjacent the screw threads 5 is of circular cross section and is rotatable in a bush 8. The other end of the shaft 7 is of square cross section and is supported in a square socket in a handle 9. The handle 9 is formed as an end cap on the second housing portion 3.

The handle 9 is rotatable about the housing portion 3 so that the shaft 7 and accordingly the roll of paper strip 4 rotate therewith. Adjacent the bush 8 a rubber plug 10 is mounted on the shaft 7 to provide a friction brake when the shaft 7 is rotated by the handle 9.

Spacers 11 are provided on the shaft 7 adjacent each end of the roll 4 to maintain the roll 4 in its position in the housing portion 3. The end of the shaft 7 carrying the rubber plug 10 protrudes therefrom to facilitate its removal by a drift.

An exit slot 12 (see figure 2) is provided in the housing portion 3, through which paper strip may be removed from the roll. One edge of the slot may be a serrated cutting edge 13 or provided with other means for removing a portion of the paper strip.

To prevent fouling or tearing of the edge 14 of the paper strip which in use will protrude from the exit slot 12, there is provided a substantially tubular resilient plastics member 15 which is mountable on and rotatable about the housing portion 3. The member 15 has an exit slot 16 to allow removal of paper strip and one edge 17 of the slot 16 may be provided with a serrated cutting edge, as an alternative to the edge 13 of exit slot 12.

For removal of paper strip from the housing portion 3, the member 15 is rotated so that the slots 16 and 12 are in register. After sufficient strip has been dispensed by rotation of handle 9, it is torn off using cutting edge 17. The member 15 is then rotated so that the body of member 15 covers slot 12 and the edge 14 of paper strip protruding therefrom.

The member 15 is provided with internal protrusions 18 which are engageable with correspondingly spaced depressions 19 in the housing. The depressions 19 and protrusions 18 are arranged so that when they are mutually engaged, the member 15 is held in a position where it protects the exit slot. By virtue of its resilience, the portion of the member 15 carrying the protrusions 18 may be lifted to disengage the protrusions 18 from the depressions 19, and the member 15 may then be rotated to expose the slot. When sufficient paper has been removed, the member 15 is returned to its original position and the protrusions and depressions re-engage.

It will be appreciated that the corresponding depressions and protrusions could be positioned so that the detent action occurs when the member is in a position to expose the slot. Equally protrusions and depressions may be provided to give a detent action in both positions. The location of the depressions and protrusions may be reversed as desired with respect to the member 15 and the housing.

In an alternative embodiment a tubular member having no exit slot may be provided. The tubular member is then moved axially along the housing portions 3 and 1 to uncover and cover the slot 12 and the strip edge 14.

It will be appreciated that the embodiment described is by way of example only. Accordingly, in a simplified version of the embodiment shown, the shaft 7 may be dispensed with and the roll of paper strip 4 may merely lie within the housing portion 3 or rotate about the ink reservoir of a ball tip nib.

In a typical application of the invention a strip of paper approximately 50 inches length is used. The paper has a nominal thickness of 0.003 inches and a machine wrapped roll has a thickness of approximately 3/8th inch including the hollow axle tube. The housing is dimensioned accordingly to allow rotation of the roll.

WHAT I CLAIM IS:—

1. A writing instrument comprising a substantially tubular housing having at one end marking means, adjacent the other end and exit slot for one end of a roll of paper which is free to rotate within the housing, and means on the housing movable from a first position covering the slot to a second position exposing the slot, the movable means and the housing being provided with at least one co-operating depression and protrusion acting as detent means in at least one of the said positions.

2. An accessory device for a writing instrument comprising a substantially tubular housing having at one end means for engagement with a writing instrument, a rolled paper strip which is free to rotate within the housing, an exit slot in the housing for the paper strip, and means on the housing movable from a first position covering the slot to a second position exposing the slot, the movable means and the housing being provided with at least one co-operating depression and protrusion acting as detent means in at least one of the said positions.

3. A writing instrument or an accessory therefor as claimed in Claim 1 or Claim 2 wherein the movable means is a tubular member.

4. A writing instrument or accessory therefor as claimed in claim 3 wherein the tubular member is rotatable on the housing

and has an exit slot for paper strip.

5. A writing instrument or accessory therefor as claimed in any one of claims 1 to 4 in which the exit slot on the housing is provided with a cutting edge.

6. A writing instrument or accessory therefor as claimed in claim 4 in which the exit slot of the tubular member has a cutting edge.

7. A writing instrument or accessory therefor as claimed in claim 1 or claim 2 substantially as described herein with reference to the accompanying drawings.

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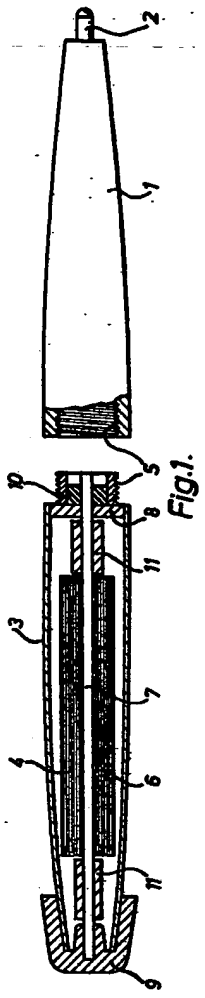

Fig.1.

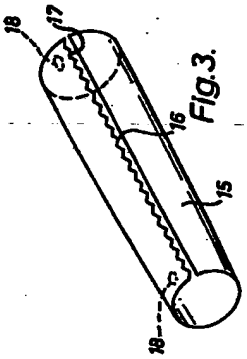

Fig.3.

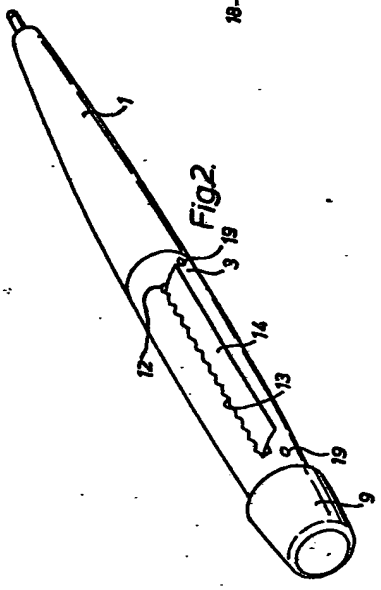

Fig.2.